

Recreational Development
Antrim County, Michigan

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation.)

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Lawns, landscaping, and golf fairways
AuA: Au Gres-----	Very limited: too sandy, depth to saturated zone.	Very limited: too sandy, depth to saturated zone.	Very limited: too sandy, depth to saturated zone, gravel content, slope.	Very limited: too sandy, depth to saturated zone.	Very limited: depth to saturated zone, droughty, too sandy.
Finch-----	Very limited: too sandy, depth to saturated zone.	Very limited: too sandy, depth to saturated zone.	Very limited: too sandy, depth to saturated zone, slope.	Very limited: too sandy, depth to saturated zone.	Very limited: droughty, depth to saturated zone, too sandy.
Be: Beaches-----	Not rated-----	Not rated-----	Not rated-----	Not rated-----	Not rated-----
CbA: Charlevoix-----	Somewhat limited: depth to saturated zone.	Somewhat limited: depth to saturated zone.	Somewhat limited: depth to saturated zone, gravel content, slope.	Somewhat limited: depth to saturated zone.	Somewhat limited: depth to saturated zone.
CcB: Chestonia-----	Very limited: restricted permeability, depth to saturated zone, slope.	Very limited: restricted permeability, depth to saturated zone, slope.	Very limited: restricted permeability, slope, depth to saturated zone.	Somewhat limited: depth to saturated zone.	Somewhat limited: depth to saturated zone, slope.
CcD: Chestonia-----	Very limited: restricted permeability, slope, depth to saturated zone.	Very limited: restricted permeability, slope, depth to saturated zone.	Very limited: slope, restricted permeability, depth to saturated zone.	Somewhat limited: slope, depth to saturated zone.	Very limited: slope, depth to saturated zone.
CdA: Croswell-----	Very limited: too sandy.	Very limited: too sandy.	Very limited: too sandy, gravel content, slope.	Very limited: too sandy.	Somewhat limited: droughty, too sandy.
DeC: Deer Park-----	Very limited: too sandy, slope.	Very limited: too sandy, slope.	Very limited: too sandy, slope.	Very limited: too sandy.	Very limited: droughty, too sandy, slope.
DrC: Deer Park-----	Very limited: too sandy, slope.	Very limited: too sandy, slope.	Very limited: too sandy, slope.	Very limited: too sandy.	Very limited: droughty, too sandy, slope.
Roscommon-----	Very limited: depth to saturated zone, ponding, too sandy.	Very limited: too sandy, ponding, depth to saturated zone.	Very limited: depth to saturated zone, too sandy, ponding.	Very limited: depth to saturated zone, too sandy, ponding.	Very limited: ponding, depth to saturated zone, too sandy, droughty.
EaB: East Lake-----	Somewhat limited: too sandy.	Somewhat limited: too sandy.	Somewhat limited: gravel content, too sandy, slope, content of large stones.	Somewhat limited: too sandy.	Somewhat limited: droughty, content of large stones.

Recreational Development--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Lawns, landscaping, and golf fairways
EmB:					
Emmet-----	Somewhat limited: slope.	Somewhat limited: slope.	Very limited: slope, gravel content.	Not limited-----	Somewhat limited: slope.
Montcalm-----	Somewhat limited: too sandy, slope.	Somewhat limited: too sandy, slope.	Very limited: slope, too sandy, gravel content.	Somewhat limited: too sandy.	Somewhat limited: droughty, slope.
EmD:					
Emmet-----	Very limited: slope.	Very limited: slope.	Very limited: slope, gravel content.	Very limited: slope.	Very limited: slope.
Montcalm-----	Very limited: slope, too sandy.	Very limited: slope, too sandy.	Very limited: slope, too sandy, gravel content.	Very limited: slope, too sandy.	Very limited: slope, droughty.
EOB:					
Emmet-----	Somewhat limited: slope.	Somewhat limited: slope.	Very limited: slope, gravel content.	Not limited-----	Somewhat limited: slope.
Onaway-----	Somewhat limited: restricted permeability, slope.	Somewhat limited: restricted permeability, slope.	Very limited: slope, restricted permeability, gravel content, content of large stones.	Not limited-----	Somewhat limited: content of large stones, slope.
IoA:					
Iosco-----	Very limited: too sandy, depth to saturated zone, restricted permeability.	Very limited: too sandy, depth to saturated zone, restricted permeability.	Very limited: too sandy, depth to saturated zone, restricted permeability, gravel content, slope.	Very limited: too sandy, depth to saturated zone.	Very limited: depth to saturated zone, too sandy.
KaB:					
Kalkaska-----	Very limited: too sandy.	Very limited: too sandy.	Very limited: too sandy, slope.	Very limited: too sandy.	Somewhat limited: droughty, too sandy.
KcD:					
Kalkaska-----	Very limited: too sandy, slope.	Very limited: too sandy, slope.	Very limited: slope, too sandy.	Very limited: too sandy, slope.	Very limited: slope, droughty, too sandy.
KeB:					
Kalkaska-----	Very limited: too sandy.	Very limited: too sandy.	Very limited: too sandy, slope.	Very limited: too sandy.	Somewhat limited: droughty, too sandy.
East Lake-----	Somewhat limited: too sandy.	Somewhat limited: too sandy.	Somewhat limited: gravel content, too sandy, slope, content of large stones.	Somewhat limited: too sandy.	Somewhat limited: droughty, content of large stones.
KeD:					
Kalkaska-----	Very limited: too sandy, slope.	Very limited: too sandy, slope.	Very limited: too sandy, slope.	Very limited: too sandy.	Somewhat limited: droughty, slope, too sandy.

Recreational Development--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Lawns, landscaping, and golf fairways
East Lake-----	Somewhat limited: slope, too sandy.	Somewhat limited: slope, too sandy.	Very limited: slope, gravel content, too sandy, content of large stones.	Somewhat limited: too sandy.	Somewhat limited: droughty, slope, content of large stones.
KkB: Kalkaska-----	Very limited: too sandy.	Very limited: too sandy.	Very limited: too sandy, slope.	Very limited: too sandy.	Somewhat limited: droughty, too sandy.
Karlin-----	Somewhat limited: too sandy.	Somewhat limited: too sandy.	Somewhat limited: too sandy, slope, gravel content.	Somewhat limited: too sandy.	Somewhat limited: droughty.
KmB: Kalkaska-----	Very limited: too sandy.	Very limited: too sandy.	Very limited: too sandy, slope.	Very limited: too sandy.	Somewhat limited: droughty, too sandy.
Montcalm-----	Somewhat limited: too sandy.	Somewhat limited: too sandy.	Very limited: slope, too sandy, gravel content.	Somewhat limited: too sandy.	Somewhat limited: droughty.
KmD: Kalkaska-----	Very limited: too sandy, slope.	Very limited: too sandy, slope.	Very limited: slope, too sandy.	Very limited: too sandy, slope.	Very limited: slope, droughty, too sandy.
Montcalm-----	Very limited: slope, too sandy.	Very limited: slope, too sandy.	Very limited: slope, too sandy, gravel content.	Somewhat limited: too sandy, slope.	Very limited: slope, droughty.
KsA: Kawkawlin-----	Very limited: depth to saturated zone, restricted permeability.	Very limited: depth to saturated zone, restricted permeability.	Very limited: depth to saturated zone, restricted permeability, slope.	Very limited: depth to saturated zone.	Very limited: depth to saturated zone.
Ps: Pickford-----	Very limited: depth to saturated zone, restricted permeability.	Very limited: depth to saturated zone, restricted permeability.	Very limited: depth to saturated zone, restricted permeability.	Very limited: depth to saturated zone.	Very limited: depth to saturated zone.
Ro: Roscommon-----	Very limited: depth to saturated zone, ponding, too sandy.	Very limited: too sandy, ponding, depth to saturated zone.	Very limited: depth to saturated zone, too sandy, ponding.	Very limited: depth to saturated zone, too sandy, ponding.	Very limited: ponding, depth to saturated zone, too sandy, droughty.
RuB: Rubicon-----	Very limited: too sandy.	Very limited: too sandy.	Very limited: too sandy, slope, gravel content.	Very limited: too sandy.	Somewhat limited: droughty, too sandy.
Ta: Tawas-----	Very limited: depth to saturated zone, ponding, content of organic matter.	Very limited: ponding, depth to saturated zone, content of organic matter.	Very limited: depth to saturated zone, content of organic matter, ponding.	Very limited: depth to saturated zone, content of organic matter, ponding.	Very limited: ponding, content of organic matter, depth to saturated zone.
Te: Ensley-----	Very limited: depth to saturated zone.	Very limited: depth to saturated zone.	Very limited: depth to saturated zone, gravel content, content of large stones.	Very limited: depth to saturated zone.	Very limited: depth to saturated zone, content of large stones.

Recreational Development--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Lawns, landscaping, and golf fairways
Tawas-----	Very limited: depth to saturated zone, ponding, content of organic matter.	Very limited: ponding, depth to saturated zone, content of organic matter.	Very limited: depth to saturated zone, content of organic matter, ponding.	Very limited: depth to saturated zone, content of organic matter, ponding.	Very limited: ponding, content of organic matter, depth to saturated zone.

Recreational Development--Continued

ENDNOTE--RECREATIONAL DEVELOPMENT

The soils of the survey area are rated in the above table according to limitations that affect their suitability for recreation. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

CAMP AREAS require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

PICNIC AREAS are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

PLAYGROUNDS require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

PATHS AND TRAILS for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

LAWNS AND LANDSCAPING require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.